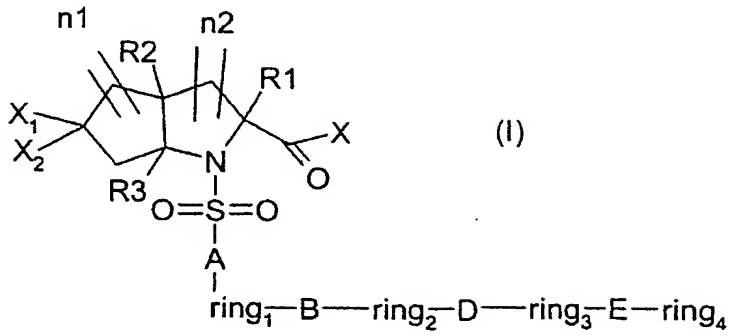
What is claimed is:

1. A compound of formula I



(I)

wherein

A is

-(C_0-C_4)-alkylene,

B, D and E are identical or different and are, independently of each other,

-(C_0-C_4)-alkylene,
-(C_2-C_4)-alkenylene,
-$S(O)_o$-,
-NH-,
-NH-C(O)-,
-C(O)-NH-,
-$NH-SO_2$-,
-NH-C(O)-NH-,
-NH-C(S)-,
-NH-C(O)-O-,
-O-,
-O-C(O)-NH-,
-C(O)-,
-O-$(CH_2)_n$-O-, or
-O-$(CH_2)_m$-NH-,

o is

zero, 1 or 2,

n is

2 or 3,

m is

2 or 3,

ring 1, ring 2 or ring 3 are identical or different and are, independently of each other,

covalent bond,

-(C_6-C_{14})-aryl that is unsubstituted or substituted, independently of each other, once, twice or three times, by G, or

5- or 6-membered aromatic heteroaryl ring that is unsubstituted or substituted, independently of each other, once, twice or three times, by G,

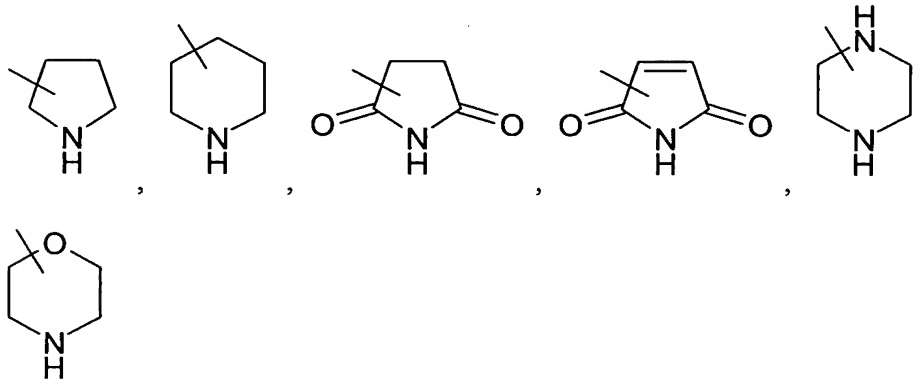
ring 4 is

-(C_6-C_{14})-aryl that is unsubstituted or substituted, independently of each other, once, twice or three times, by G,

5- or 6-membered aromatic heteroaryl ring that is unsubstituted or substituted, independently of each other, once, twice or three times, by G,

heteroaryl that is unsubstituted or substituted, independently of each other, once, twice or three times, by G, or

azaheterocyclyl selected from the group consisting of



and

that are unsubstituted or substituted, independently of each other, once, twice or three times, by G,

G is

hydrogen,
halogen,
R^4,
$-O-R^4$,
$-C(O)-R^5$,
$-S(O)_p-R^4$,
$-NO_2$,
-CN or
$-NR^3R^4$,

p is

zero, 1 or 2,

X is

-OH or -NH-OH,

X^1 and X^2 are identical or different and are, independently of each other,

hydrogen or $-(C_1-C_6)$-alkyl, or
taken together form the radical =O,

n^1 is

$-(CH_2)_r-$,

n^2 is

$-(CH_2)_q-$,

r is

zero, 1, 2 or 3,

q is

zero, 1, 2 or 3,

R^1 is

hydrogen, or

-(C_1-C_6)-alkyl that is unsubstituted or substituted, once or twice, by -(C_3-C_6)-cycloalkyl, -(C_6-C_{14})-aryl or heteroaryl,

R2 and R^3 are identical or different and are, independently of each other,
hydrogen or -(C_1-C_6)-alkyl,

R^4 is
hydrogen,
-(C_1-C_6)-alkyl that is unsubstituted or substituted, once, twice or three times, by halogen, -(C_3-C_6)-cycloalkyl, -(C_6-C_{14})-aryl or heteroaryl,
-(C_6-C_{14})-aryl,
heteroaryl,
-C(O)-O-R^5,
-C(S)-O-R^5,
-C(O)-NH-R^6,
-C(S)-NH-R^6,

R^5 is -(C_1-C_6)-alkyl that is unsubstituted or substituted, once or twice, by -(C_3-C_6)-cycloalkyl, -(C_6-C_{14})-aryl, or heteroaryl,
-(C_6-C_{14})-aryl, or
heteroaryl, and

R^6 is
-(C_1-C_6)-alkyl that is unsubstituted or substituted, once or twice, by -(C_3-C_6)-cycloalkyl, -(C_6-C_{14})-aryl or heteroaryl, or
-(C_6-C_{14})-aryl, or
heteroaryl, or

stereoisomer thereof, a mixture of stereoisomers thereof in any ratio, or physiologically tolerable salt thereof..

2. The compound of claim 1, wherein
ring 1, ring 2 or ring 3 as

-(C_6-C_{14})-aryl is phenyl, naphthyl, 1-naphthyl, 2-naphthyl, biphenylyl, 2-biphenylyl, 3-biphenylyl, 4-biphenylyl, anthryl or fluorenyl and is unsubstituted or substituted, independently of each other, once, twice or three times, by G, or

5- or 6-membered aromatic heteroaryl ring is dihydrofuranyl, dioxolyl, dioxanyl, furanyl, imidazolidinyl, imidazolinyl, imidazolyl, isoxazolyl, isoxazolidinyl, 2-isoxazolinyl, isothiazolyl, isothiazolidinyl, 2-isothiazolinyl, morpholinyl, oxazolyl, oxothiolanyl, piperazinyl, piperidinyl, pyranyl, pyrazinyl, pyrazolyl, pyrazolidinyl, pyrazolinyl, pyridazinyl, pyridinyl, pyrimidinyl, pyrrolyl, pyrrolidinyl, tetrahydrofuranyl, tetrahydropyridinyl, thiazolyl, thiomorpholinyl, thiophenyl or thiopyranyl and is unsubstituted or substituted, independently of each other, once, twice or three times, by G,

ring 4 as

-(C_6-C_{14})-aryl is phenyl, naphthyl, 1-naphthyl, 2-naphthyl, biphenylyl, 2-biphenylyl, 3-biphenylyl, 4-biphenylyl, anthryl or fluorenyl and is unsubstituted or substituted, independently of each other, once, twice or three times, by G,

5- or 6-membered aromatic heteroaryl ring is dihydrofuranyl, dioxolyl, dioxanyl, furanyl, imidazolidinyl, imidazolinyl, imidazolyl, isoxazolyl, isoxazolidinyl, 2-isoxazolinyl, isothiazolyl, isothiazolidinyl, 2-isothiazolinyl, morpholinyl, oxazolyl, oxothiolanyl, piperazinyl, piperidinyl, pyranyl, pyrazinyl, pyrazolyl, pyrazolidinyl, pyrazolinyl, pyridazinyl, pyridinyl, pyrimidinyl, pyrrolyl, pyrrolidinyl, tetrahydrofuranyl, tetrahydropyridinyl, thiazolyl, thiomorpholinyl, thiophenyl or thiopyranyl and is unsubstituted or substituted, independently of each other, once, twice or three times, by G, or

heteroaryl is acridinyl, azetidinyl, benzimidazolyl, benzofuranyl, benzothiofuranyl, benzothiophenyl, benzoxazolyl, benzothiazolyl, benzotriazolyl, benzotetrazolyl, benzisoxazolyl, benzisothiazolyl, benzimidazalinyl, carbazolyl, 4aH-carbazolyl, carbolinyl, chromanyl, chromenyl, cinnolinyl, decahydroquinolinyl, 2H,6H-1,5,2-dithiazinyl, dihydrofuran[2,3-b]tetrahydrofuran, fuaranyl, furazanyl, imidazolidinyl, imidazolinyl, imidazolyl, 1H-indazolyl, indolinyl, indolizinyl, indolyl, 3H-indolyl, isobenzofuranyl, isochromanyl, isoindazolyl, isoindolinyl, isoindolyl, isoquinolinyl (benzimidazolyl), isothiazolyl, isoxazolyl, morpholinyl, naphthyridinyl, octahydroisoquinolinyl, oxadiazolyl, 1,2,3-oxadiazolyl, 1,2,4-oxadiazolyl, 1,2,5-oxadiazolyl, 1,3,4-oxadiazolyl, oxazolidinyl, oxazolyl, oxazolidinyl, pyrimidinyl, phenanthridinyl,

phenanthrolinyl, phenazinyl, phenothiazinyl, phenoxathiinyl, phenoxazinyl, phthalazinyl, piperazinyl, piperidinyl, pteridinyl, purynyl, pyranyl, pyrazinyl, pyroazolidinyl, pyrazolinyl, pyrazolyl, pyridazinyl, pryidooxazolyl, pyridoimidazolyl, pyridothiazolyl, pyridothiophenyl, pyridinyl, pyridyl, pyrimidinyl, pyrrolidinyl, pyrrolinyl, 2H-pyrrolyl, pyrrolyl, quinazolinyl, quinolinyl, 4H-quinolizinyl, quinoxalinyl, quinuclidinyl, tetrahydrofuranyl, tetrahydroisoquinolinyl, tetrahydroquinolinyl, 6H-1,2,5-thiadazinyl, 1,2,3-thiadiazolyl, 1, 2, 4-thiadiazolyl, 1, 2, 5-thiadiazolyl, 1,3,4-thiadiazolyl, thianthrenyl, thiazolyl, thienyl, thienothiazolyl, thienooxazolyl, thienoimidazolyl, thiophenyl, triazinyl, 1,2,3-triazolyl, 1,2,3-triazolyl, 1,2,4-triazolyl, 1,2,5-triazolyl, 1,3,4-triazolyl or xanthenyl,
that is unsubstituted or substituted, independently of each other, once, twice or three times, by G,

R^4 as

-(C_1-C_6)-alkyl that is unsubstituted or substituted, once, twice or three times, by halogen, -(C_3-C_6)-cycloalkyl, phenyl, naphthyl, acridinyl, azetidinyl, benzimidazolyl, benzofuranyl, benzothiofuranyl, benzothiophenyl, benzoxazolyl, benzothiazolyl, benzotriazolyl, benzotetrazolyl, benzisoxazolyl, benzisothiazolyl, benzimidazalinyl, carbazolyl, 4aH-carbazolyl, carbolinyl, chromanyl, chromenyl, cinnolinyl, deca-hydroquinolinyl, 2H,6H-1,5,2-dithiazinyl, dihydrofuran[2,3-b]tetrahydrofuran, fuaranyl, furazanyl, imidazolidinyl, imidazolinyl, imidazolyl, 1H-indazolyl, indolinyl, indolizinyl, indolyl, 3H-indolyl, isobenzofuranyl, isochromanyl, isoindazolyl, isoindolinyl, isoindolyl, isoquinolinyl (benzimidazolyl), isothiazolyl, isoxazolyl, morpholinyl, naphthyridinyl, octahydroisoquinolinyl, oxadiazolyl, 1,2,3-oxadiazolyl, 1,2,4-oxadiazolyl, 1,2,5-oxadiazolyl, 1,3,4-oxadiazolyl, oxazolidinyl, oxazolyl, oxazolidinyl, pyrimidinyl, phenanthridinyl, phenanthrolinyl, phenazinyl, phenothiazinyl, phenoxathiinyl, phenoxazinyl, phthalazinyl, piperazinyl, piperidinyl, pteridinyl, purynyl, pyranyl, pyrazinyl, pyroazolidinyl, pyrazolinyl, pyrazolyl, pyridazinyl, pryidooxazolyl, pyridoimidazolyl, pyridothiazolyl, pyridothiophenyl, pyridinyl, pyridyl, pyrimidinyl, pyrrolidinyl, pyrrolinyl, 2H-pyrrolyl, pyrrolyl, quinazolinyl, quinolinyl, 4H-quinolizinyl, quinoxalinyl, quinuclidinyl, tetrahydrofuranyl, tetrahydroisoquinolinyl, tetrahydroquinolinyl, 6H-1,2,5-thiadazinyl, 1,2,3-thiadiazolyl, 1, 2, 4-thiadiazolyl, 1, 2, 5-thiadiazolyl, 1,3,4-thiadiazolyl,

thianthrenyl, thiazolyl, thienyl, thienothiazolyl, thienooxazolyl, thienoimidazolyl, thiophenyl, triazinyl, 1,2,3-triazolyl, 1,2,3-triazolyl, 1,2,4-triazolyl, 1,2,5-triazolyl, 1,3,4-triazolyl or xanthenyl,
that is unsubstituted or substituted, independently of each other, once, twice or three times, by G,
-(C_6-C_{14})-aryl is phenyl or naphthyl, or
heteroaryl is acridinyl, azetidinyl, benzimidazolyl, benzofuranyl, benzothiofuranyl, benzothiophenyl, benzoxazolyl, benzothiazolyl, benzotriazolyl, benzotetrazolyl, benzisoxazolyl, benzisothiazolyl, benzimidazalinyl, carbazolyl, 4aH-carbazolyl, carbolinyl, chromanyl, chromenyl, cinnolinyl, decahydroquinolinyl, 2H,6H-1,5,2-dithiazinyl, dihydrofuran[2,3-b]tetrahydrofuran, fuaranyl, furazanyl, imidazolidinyl, imidazolinyl, imidazolyl, 1H-indazolyl, indolinyl, indolizinyl, indolyl, 3H-indolyl, isobenzofuranyl, isochromanyl, isoindazolyl, isoindolinyl, isoindolyl, isoquinolinyl (benzimidazolyl), isothiazolyl, isoxazolyl, morpholinyl, naphthyridinyl, octahydroisoquinolinyl, oxadiazolyl, 1,2,3-oxadiazolyl, 1,2,4-oxadiazolyl, 1,2,5-oxadiazolyl, 1,3,4-oxadiazolyl, oxazolidinyl, oxazolyl, oxazolidinyl, pyrimidinyl, phenanthridinyl, phenanthrolinyl, phenazinyl, phenothiazinyl, phenoxathiinyl, phenoxazinyl, phthalazinyl, piperazinyl, piperidinyl, pteridinyl, purynyl, pyranyl, pyrazinyl, pyroazolidinyl, pyrazolinyl, pyrazolyl, pyridazinyl, pryidooxazolyl, pyridoimidazolyl, pyridothiazolyl, pyridothiophenyl, pyridinyl, pyridyl, pyrimidinyl, pyrrolidinyl, pyrrolinyl, 2H-pyrrolyl, pyrrolyl, quinazolinyl, quinolinyl, 4H-quinolizinyl, quinoxalinyl, quinuclidinyl, tetrahydrofuranyl, tetrahydroisoquinolinyl, tetrahydroquinolinyl, 6H-1,2,5-thiadazinyl, 1,2,3-thiadiazolyl, 1, 2, 4-thiadiazolyl, 1, 2, 5-thiadiazolyl, 1,3,4-thiadiazolyl, thianthrenyl, thiazolyl, thienyl, thienothiazolyl, thienooxazolyl, thienoimidazolyl, thiophenyl, triazinyl, 1,2,3-triazolyl, 1,2,3-triazolyl, 1,2,4-triazolyl, 1,2,5-triazolyl, 1,3,4-triazolyl or xanthenyl,
that is unsubstituted or substituted, independently of each other, once, twice or three times, by G,

R^5 is

-(C_1-C_6)-alkyl that is unsubstituted or substituted, once, twice or three times, by -(C_3-C_6)-cycloalkyl, phenyl, naphthyl, acridinyl, azetidinyl, benzimidazolyl, benzofuranyl, benzothiofuranyl, benzothiophenyl, benzoxazolyl, benzothiazolyl,

benzotriazolyl, benzotetrazolyl, benzisoxazolyl, benzisothiazolyl, benzimidazalinyl, carbazolyl, 4aH-carbazolyl, carbolinyl, chromanyl, chromenyl, cinnolinyl, deca-hydroquinolinyl, 2H,6H-1,5,2-dithiazinyl, dihydrofuran[2,3-b]tetrahydrofuran, fuaranyl, furazanyl, imidazolidinyl, imidazolinyl, imidazolyl, 1H-indazolyl, indolinyl, indolizinyl, indolyl, 3H-indolyl, isobenzofuranyl, isochromanyl, isoindazolyl, isoindolinyl, isoindolyl, isoquinolinyl (benzimidazolyl), isothiazolyl, isoxazolyl, morpholinyl, naphthyridinyl, octahydroisoquinolinyl, oxadiazolyl, 1,2,3-oxadiazolyl, 1,2,4-oxadiazolyl, 1,2,5-oxadiazolyl, 1,3,4-oxadiazolyl, oxazolidinyl, oxazolyl, oxazolidinyl, pyrimidinyl, phenanthridinyl, phenanthrolinyl, phenazinyl, phenothiazinyl, phenoxathiinyl, phenoxazinyl, phthalazinyl, piperazinyl, piperidinyl, pteridinyl, purynyl, pyranyl, pyrazinyl, pyroazolidinyl, pyrazolinyl, pyrazolyl, pyridazinyl, pryidooxazolyl, pyridoimidazolyl, pyridothiazolyl, pyridothiophenyl, pyridinyl, pyridyl, pyrimidinyl, pyrrolidinyl, pyrrolinyl, 2H-pyrrolyl, pyrrolyl, quinazolinyl, quinolinyl, 4H-quinolizinyl, quinoxalinyl, quinuclidinyl, tetrahydrofuranyl, tetrahydroisoquinolinyl, tetrahydroquinolinyl, 6H-1,2,5-thiadazinyl, 1,2,3-thiadiazolyl, 1, 2, 4-thiadiazolyl, 1, 2, 5-thiadiazolyl, 1,3,4-thiadiazolyl, thianthrenyl, thiazolyl, thienyl, thienothiazolyl, thienooxazolyl, thienoimidazolyl, thiophenyl, triazinyl, 1,2,3-triazolyl, 1,2,3-triazolyl, 1,2,4-triazolyl, 1,2,5-triazolyl, 1,3,4-triazolyl or xanthenyl,

that is unsubstituted or substituted, independently of each other, once, twice or three times, by G,

-(C_6-C_{14})-aryl is phenyl or naphthyl, or

heteroaryl is acridinyl, azetidinyl, benzimidazolyl, benzofuranyl, benzothiofuranyl, benzothiophenyl, benzoxazolyl, benzothiazolyl, benzotriazolyl, benzotetrazolyl, benzisoxazolyl, benzisothiazolyl, benzimidazalinyl, carbazolyl, 4aH-carbazolyl, carbolinyl, chromanyl, chromenyl, cinnolinyl, deca-hydroquinolinyl, 2H,6H-1,5,2-dithiazinyl, dihydrofuran[2,3-b]tetrahydrofuran, fuaranyl, furazanyl, imidazolidinyl, imidazolinyl, imidazolyl, 1H-indazolyl, indolinyl, indolizinyl, indolyl, 3H-indolyl, isobenzofuranyl, isochromanyl, isoindazolyl, isoindolinyl, isoindolyl, isoquinolinyl (benzimidazolyl), isothiazolyl, isoxazolyl, morpholinyl, naphthyridinyl, octahydroisoquinolinyl, oxadiazolyl, 1,2,3-oxadiazolyl, 1,2,4-oxadiazolyl, 1,2,5-oxadiazolyl, 1,3,4-oxadiazolyl, oxazolidinyl, oxazolyl, oxazolidinyl, pyrimidinyl, phenanthridinyl, phenanthrolinyl, phenazinyl, phenothiazinyl, phenoxathiinyl, phenoxazinyl,

phthalazinyl, piperazinyl, piperidinyl, pteridinyl, purynyl, pyranyl, pyrazinyl, pyroazolidinyl, pyrazolinyl, pyrazolyl, pyridazinyl, pryidooxazolyl, pyridoimidazolyl, pyridothiazolyl, pyridothiophenyl, pyridinyl, pyridyl, pyrimidinyl, pyrrolidinyl, pyrrolinyl, 2H-pyrrolyl, pyrrolyl, quinazolinyl, quinolinyl, 4H-quinolizinyl, quinoxalinyl, quinuclidinyl, tetrahydrofuranyl, tetrahydroisoquinolinyl, tetrahydroquinolinyl, 6H-1,2,5-thiadazinyl, 1,2,3-thiadiazolyl, 1, 2, 4-thiadiazolyl, 1, 2, 5-thiadiazolyl, 1,3,4-thiadiazolyl, thianthrenyl, thiazolyl, thienyl, thienothiazolyl, thienooxazolyl, thienoimidazolyl, thiophenyl, triazinyl, 1,2,3-triazolyl, 1,2,3-triazolyl, 1,2,4-triazolyl, 1,2,5-triazolyl, 1,3,4-triazolyl or xanthenyl,
that is unsubstituted or substituted, independently of each other, once, twice or three times, by G,

R^6 as

-(C_1-C_6)-alkyl that is unsubstituted or substituted, once, twice or three times, by -(C_3-C_6)-cycloalkyl, phenyl, naphthyl, acridinyl, azetidinyl, benzimidazolyl, benzofuranyl, benzothiofuranyl, benzothiophenyl, benzoxazolyl, benzothiazolyl, benzotriazolyl, benzotetrazolyl, benzisoxazolyl, benzisothiazolyl, benzimidazalinyl, carbazolyl, 4aH-carbazolyl, carbolinyl, chromanyl, chromenyl, cinnolinyl, deca-hydroquinolinyl, 2H,6H-1,5,2-dithiazinyl, dihydrofuran[2,3-b]tetrahydrofuran, fuaranyl, furazanyl, imidazolidinyl, imidazolinyl, imidazolyl, 1H-indazolyl, indolinyl, indolizinyl, indolyl, 3H-indolyl, isobenzofuranyl, isochromanyl, isoindazolyl, isoindolinyl, isoindolyl, isoquinolinyl (benzimidazolyl), isothiazolyl, isoxazolyl, morpholinyl, naphthyridinyl, octahydroisoquinolinyl, oxadiazolyl, 1,2,3-oxadiazolyl, 1,2,4-oxadiazolyl, 1,2,5-oxadiazolyl, 1,3,4-oxadiazolyl, oxazolidinyl, oxazolyl, oxazolidinyl, pyrimidinyl, phenanthridinyl, phenanthrolinyl, phenazinyl, phenothiazinyl, phenoxathiinyl, phenoxazinyl, phthalazinyl, piperazinyl, piperidinyl, pteridinyl, purynyl, pyranyl, pyrazinyl, pyroazolidinyl, pyrazolinyl, pyrazolyl, pyridazinyl, pryidooxazolyl, pyridoimidazolyl, pyridothiazolyl, pyridothiophenyl, pyridinyl, pyridyl, pyrimidinyl, pyrrolidinyl, pyrrolinyl, 2H-pyrrolyl, pyrrolyl, quinazolinyl, quinolinyl, 4H-quinolizinyl, quinoxalinyl, quinuclidinyl, tetrahydrofuranyl, tetrahydroisoquinolinyl, tetrahydroquinolinyl, 6H-1,2,5-thiadazinyl, 1,2,3-thiadiazolyl, 1, 2, 4-thiadiazolyl, 1, 2, 5-thiadiazolyl, 1,3,4-thiadiazolyl, thianthrenyl, thiazolyl, thienyl, thienothiazolyl, thienooxazolyl, thienoimidazolyl,

thiophenyl, triazinyl, 1,2,3-triazolyl, 1,2,3-triazolyl, 1,2,4-triazolyl, 1,2,5-triazolyl, 1,3,4-triazolyl or xanthenyl,
that is unsubstituted or substituted, independently of each other, once, twice or three times, by G,

-(C_6-C_{14})-aryl is phenyl or naphthyl, or
heteroaryl is acridinyl, azetidinyl, benzimidazolyl, benzofuranyl, benzothiofuranyl, benzothiophenyl, benzoxazolyl, benzothiazolyl, benzotriazolyl, benzotetrazolyl, benzisoxazolyl, benzisothiazolyl, benzimidazalinyl, carbazolyl, 4aH-carbazolyl, carbolinyl, chromanyl, chromenyl, cinnolinyl, decahydroquinolinyl, 2H,6H-1,5,2-dithiazinyl, dihydrofuran[2,3-b]tetrahydrofuran, fuaranyl, furazanyl, imidazolidinyl, imidazolinyl, imidazolyl, 1H-indazolyl, indolinyl, indolizinyl, indolyl, 3H-indolyl, isobenzofuranyl, isochromanyl, isoindazolyl, isoindolinyl, isoindolyl, isoquinolinyl (benzimidazolyl), isothiazolyl, isoxazolyl, morpholinyl, naphthyridinyl, octahydroisoquinolinyl, oxadiazolyl, 1,2,3-oxadiazolyl, 1,2,4-oxadiazolyl, 1,2,5-oxadiazolyl, 1,3,4-oxadiazolyl, oxazolidinyl, oxazolyl, oxazolidinyl, pyrimidinyl, phenanthridinyl, phenanthrolinyl, phenazinyl, phenothiazinyl, phenoxathiinyl, phenoxazinyl, phthalazinyl, piperazinyl, piperidinyl, pteridinyl, purynyl, pyranyl, pyrazinyl, pyroazolidinyl, pyrazolinyl, pyrazolyl, pyridazinyl, pryidooxazolyl, pyridoimidazolyl, pyridothiazolyl, pyridothiophenyl, pyridinyl, pyridyl, pyrimidinyl, pyrrolidinyl, pyrrolinyl, 2H-pyrrolyl, pyrrolyl, quinazolinyl, quinolinyl, 4H-quinolizinyl, quinoxalinyl, quinuclidinyl, tetrahydrofuranyl, tetrahydroisoquinolinyl, tetrahydroquinolinyl, 6H-1,2,5-thiadazinyl, 1,2,3-thiadiazolyl, 1, 2, 4-thiadiazolyl, 1, 2, 5-thiadiazolyl, 1,3,4-thiadiazolyl, thianthrenyl, thiazolyl, thienyl, thienothiazolyl, thienooxazolyl, thienoimidazolyl, thiophenyl, triazinyl, 1,2,3-triazolyl, 1,2,3-triazolyl, 1,2,4-triazolyl, 1,2,5-triazolyl, 1,3,4-triazolyl or xanthenyl,
that is unsubstituted or substituted, independently of each other, once, twice or three times, by G, and

R^1 as

-(C_1-C_6)-alkyl that is unsubstituted or substituted, once, twice or three times, by -(C_3-C_6)-cycloalkyl, phenyl, naphthyl, acridinyl, azetidinyl, benzimidazolyl, benzofuranyl, benzothiofuranyl, benzothiophenyl, benzoxazolyl, benzothiazolyl, benzotriazolyl, benzotetrazolyl, benzisoxazolyl, benzisothiazolyl,

benzimidazalinyl, carbazolyl, 4aH-carbazolyl, carbolinyl, chromanyl, chromenyl, cinnolinyl, deca-hydroquinolinyl, 2H,6H-1,5,2-dithiazinyl, dihydrofuran[2,3-b]tetrahydrofuran, fuaranyl, furazanyl, imidazolidinyl, imidazolinyl, imidazolyl, 1H-indazolyl, indolinyl, indolizinyl, indolyl, 3H-indolyl, isobenzofuranyl, isochromanyl, isoindazolyl, isoindolinyl, isoindolyl, isoquinolinyl (benzimidazolyl), isothiazolyl, isoxazolyl, morpholinyl, naphthyridinyl, octahydroisoquinolinyl, oxadiazolyl, 1,2,3-oxadiazolyl, 1,2,4-oxadiazolyl, 1,2,5-oxadiazolyl, 1,3,4-oxadiazolyl, oxazolidinyl, oxazolyl, oxazolidinyl, pyrimidinyl, phenanthridinyl, phenanthrolinyl, phenazinyl, phenothiazinyl, phenoxathiinyl, phenoxazinyl, phthalazinyl, piperazinyl, piperidinyl, pteridinyl, purynyl, pyranyl, pyrazinyl, pyroazolidinyl, pyrazolinyl, pyrazolyl, pyridazinyl, pryidooxazolyl, pyridoimidazolyl, pyridothiazolyl, pyridothiophenyl, pyridinyl, pyridyl, pyrimidinyl, pyrrolidinyl, pyrrolinyl, 2H-pyrrolyl, pyrrolyl, quinazolinyl, quinolinyl, 4H-quinolizinyl, quinoxalinyl, quinuclidinyl, tetrahydrofuranyl, tetrahydroisoquinolinyl, tetrahydroquinolinyl, 6H-1,2,5-thiadazinyl, 1,2,3-thiadiazolyl, 1, 2, 4-thiadiazolyl, 1, 2, 5-thiadiazolyl, 1,3,4-thiadiazolyl, thianthrenyl, thiazolyl, thienyl, thienothiazolyl, thienooxazolyl, thienoimidazolyl, thiophenyl, triazinyl, 1,2,3-triazolyl, 1,2,3-triazolyl, 1,2,4-triazolyl, 1,2,5-triazolyl, 1,3,4-triazolyl or xanthenyl,

that is unsubstituted or substituted, independently of each other, once, twice or three times, by G.

3. The compound of claim 1, wherein

B, D and E are identical or different and are, independently of each other,

-(C_0-C_2)-alkylene,

-C_2-alkenylene,

-$S(O)_2$-,

-NH-,

-NH-C(O)-,

-C(O)-NH-,

-NH-C(O)-NH-,

-O-, or

-C(O)-,

ring 1, ring 2 or ring 3 as

-(C_6-C_{14})-aryl is phenyl or naphthyl that is unsubstituted or substituted, independently of each other, once, twice or three times, by G, or

5- or 6-membered aromatic heteroaryl ring that is dihydrofuranyl, furanyl, morpholinyl, piperazinyl, piperidinyl, pyridinyl, pyrimidinyl, pyrrolyl, thiazolyl or thiophenyl and are unsubstituted or substituted, independently of each other, once, twice or three times, by G,

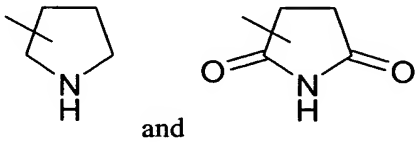
ring 4 as

-(C_6-C_{14})-aryl is phenyl or naphthyl and is unsubstituted or substituted, independently of each other, once, twice or three times, by G,

5- or 6-membered aromatic heteroaryl ring is dihydrofuranyl, furanyl, morpholinyl, piperazinyl, piperidinyl, pyridinyl, pyrimidinyl, pyrrolyl, thiazolyl or thiophenyl and is unsubstituted or substituted, independently of each other, once, twice or three times, by G,

heteroaryl that is benzofuranyl, benzothiophenyl, dihydrofuranyl, furanyl, morpholinyl, piperazinyl, piperidinyl, pyridinyl, pyridothiophenyl, pyrimidinyl, pyrrolyl, thiazolyl or thiophenyl and are unsubstituted or substituted, independently of each other, once, twice or three times, by G, or

azaheterocyclyl selected from the group consisting of



and

that is unsubstituted or substituted, independently of each other, once, twice or three times, by G,

G as

halogen is Br, Cl, I or F, and

-$S(O)_p$-R^4 is -$S(O)_2$-R^4,

R^4 is

hydrogen,

-(C_1-C_4)-alkyl that is unsubstituted or substituted, once, twice or three times, by Br, Cl, F, -C_3-cycloalkyl, phenyl, naphthyl, or heteroaryl that is benzofuranyl, benzothiophenyl, dihydrofuranyl, furanyl, morpholinyl, piperazinyl, piperidinyl,

pyridinyl, pyridothiophenyl, pyrimidinyl, pyrrolyl, thiazolyl or thiophenyl and are unsubstituted or substituted, independently of each other, once, twice or three times, by G,

phenyl or naphthyl,

heteroaryl that is benzofuranyl, benzothiophenyl, dihydrofuranyl, furanyl, morpholinyl, piperazinyl, piperidinyl, pyridinyl, pyridothiophenyl, pyrimidinyl, pyrrolyl, thiazolyl or thiophenyl and are unsubstituted or substituted, independently of each other, once, twice or three times, by G,

$-C(O)-O-R^5$, or

$-C(O)-NH-R^6$,

R^5 is

$-(C_1-C_4)$-alkyl that is unsubstituted or substituted, once or twice, by $-C_3$-cycloalkyl, phenyl, naphthyl or heteroaryl that is benzofuranyl, benzothiophenyl, dihydrofuranyl, furanyl, morpholinyl, piperazinyl, piperidinyl, pyridinyl, pyridothiophenyl, pyrimidinyl, pyrrolyl, thiazolyl or thiophenyl and are unsubstituted or substituted, independently of each other, once, twice or three times, by G,

phenyl or naphthyl, or

heteroaryl that is benzofuranyl, benzothiophenyl, dihydrofuranyl, furanyl, morpholinyl, piperazinyl, piperidinyl, pyridinyl, pyridothiophenyl, pyrimidinyl, pyrrolyl, thiazolyl or thiophenyl that is substituted, independently of each other, once, twice or three times, by G,

R^6 is

$-(C_1-C_4)$-alkyl, in which alkyl is unsubstituted or substituted, once or twice, by $-C_3$-cycloalkyl, phenyl, naphthyl or heteroaryl that is benzofuranyl, benzothiophenyl, dihydrofuranyl, furanyl, morpholinyl, piperazinyl, piperidinyl, pyridinyl, pyridothiophenyl, pyrimidinyl, pyrrolyl, thiazolyl or thiophenyl and are unsubstituted or substituted, independently of each other, once, twice or three times, by G,

phenyl or naphthyl, or

heteroaryl that is benzofuranyl, benzothiophenyl, dihydrofuranyl, furanyl, morpholinyl, piperazinyl, piperidinyl, pyridinyl, pyridothiophenyl, pyrimidinyl,

pyrrolyl, thiazolyl or thiophenyl that is substituted, independently of each other, once, twice or three times, by G,

X^1 and X^2 are

hydrogen,

n^1 and n^2 are

$-(CH_2)-$, or n^1 is $-(CH_2)_2-$ and n^2 is $-(CH_2)-$,

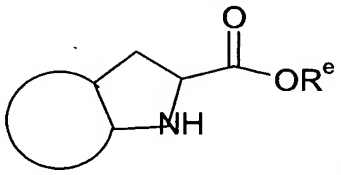
R^1 is

hydrogen, and

R2 and R^3 are

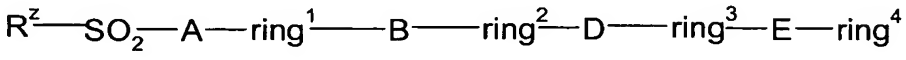
hydrogen.

4. A process for preparing the compound of claim 1, comprising



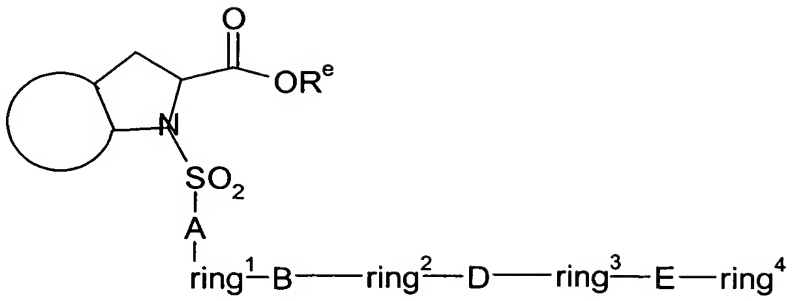
(IV)

wherein R^e is a hydrogen or an ester protecting group, with a compound of formula V,



(V)

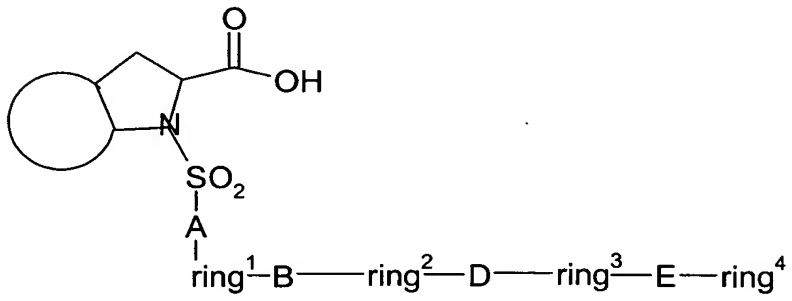
in which A, B, D, E and $ring^1$, $ring^2$, $ring^3$ and $ring^4$ are defined as in the compound of formula I, and wherein R^z is chlorine atom, imidazolyl or OH, in the presence of a base, or after silylation with a suitable silylating agent, to give a compound of formula VI,



(VI)

wherein A, B, D, E, R^e and $ring^1$, $ring^2$, $ring^3$ and $ring^4$ are as defined above, and

b) where R^e is the ester protecting group, reacting a compound of formula VI, which has been prepared in accordance with step a), with a solution of an alkali such as NaOH or LiOH, and then treating with acid, to give the carboxylic acid of formula VII, with modifications in one of the side chains of $ring^1$- $ring^4$ also having previously been carried out, where appropriate,



(VII)

and then converting this compound into the compound of formula I wherein X is NH-OH, and

c) optionally separating the compound of formula I, which has been prepared in accordance with steps a) or b) into an individual enantiomer by means of salt formation with an enantiomerically pure acid or base, chromatography on a chiral stationary phase or derivatization using chiral, enantiomerically pure compound, such as an amino acid, separation of the resulting derivatized diastereomers and elimination of the chiral auxiliary derivatization group, or

d) optionally isolating the compound of formula I, which has been prepared in accordance with steps b) or c), in free form or, when an acidic or basic group is present, converting it into a corresponding physiologically tolerated salt.

5. A pharmaceutical preparation comprising a pharmaceutically effective amount of at least one compound according to claim 1 and a pharmaceutically tolerated carrier.

6. The use of the compound of claim 1 for the prophylaxis or therapy of a disease such as osteoarthroses, spondyloses, cartilage loss following joint trauma or a relatively long period of joint immobilization following meniscus or patella injuries or ligament rupture.

7. The use of the compound of claim 1 for the prophylaxis or therapy of a disease s of the connective tissue such as collagenoses, periodontal disease or wound healing disturbances.

8. The use of the compound of claim 1 for the prophylaxis or therapy of a chronic disease of the locomotory apparatus, such as inflammatory, immunologically-determined or metabolism-determined acute and chronic arthritide, arthropathy, myalgia and a disturbance in bone metabolism.

9. The use of the compound of claim 1 for the treatment of ulceration, atherosclerosis or stenoses.

10. The use of the compound of claim 1 for the treatment of inflammations, cancer disease, tumor metastasis formation, cachexia, anorexia, heart failure or septic shock.

11. The use of the compound of claim 1 for the prophylaxis of myocardial and cerebral infarcts.